WHAT IS CLAIMED IS:

1. A stent for use in a bifurcated body lumen having a main branch and a side branch, wherein the stent comprises:

a radially expandable generally cylindrical stent body having proximal and distal opposing ends with a body wall having a surface extending therebetween, the surface having a geometrical configuration defining a first pattern, said first pattern having first pattern struts and connectors arranged in a predetermined configuration; and

a branch portion comprised of a second pattern, wherein said branch portion is at least partially detachable from said stent body.

2. The stent of claim 1, wherein said second pattern is configured according to said first pattern having at least one absent connector.

3. The stent of claim 2, wherein said at least one connector is a plurality of connectors.

4. The stent of claim 1, wherein said second pattern has second pattern struts, and wherein said second pattern struts are more densely packed than said first pattern struts.

5. A stent for implantation in a bifurcated body lumen having a main branch and a side branch, wherein the stent comprises:

a tubular body having a distal end and a proximal end; and

a branch portion between said distal end and said proximal end of said tubular body, wherein in a first configuration said branch portion is flush with said tubular

body and in a second configuration said branch portion is extended outward with respect to the tubular body.

6. The stent of claim 5, wherein said tubular body comprises a first pattern of rows of struts and connectors, wherein said rows of struts are connected to each other by said connectors.

7. The stent of claim 6, wherein said branch portion comprises a second pattern of rows of struts and connectors, wherein said second pattern of rows of struts and connectors has a different configuration than said first pattern of rows of struts and connectors.

8. The stent of claim 7, wherein said different configuration includes different strut lengths.

9. The stent of claim 7, wherein said different configuration includes at least one row having a different strut density.

10. A stent for placement at a vessel bifurcation, wherein the stent comprises:

an alternating series of rows of struts connected by rows of connectors configured in a tubular structure; and

a branch access opening in the tubular structure, said branch access opening characterized by one of said rows of connectors having at least one absent connector.

11. The stent of claim 10, wherein said at least one absent connector comprises a plurality of absent connectors.

12. The stent of claim 10, further comprising a branch portion adjacent to said branch access opening.

13. The stent of claim 12, wherein said branch portion comprises a geometrical configuration which is configured to expand independently of said tubular structure.

14. A stent system for placement in a bifurcated body lumen, the system comprising:

a catheter for insertion into said body lumen;

a balloon positioned on said catheter; and

a stent positioned on said balloon, said stent comprising a body wall having proximal and distal opposing ends with a surface extending therebetween, the surface having a geometrical configuration defining a first pattern, said first pattern having first pattern struts and connectors arranged in a predetermined configuration, and a branch portion having a geometrical configuration defining a second pattern, wherein said branch portion is at least partially detached from said surface.

15. The system of claim 14, wherein said balloon has a protruding portion in the vicinity of said branch portion for expanding said branch portion into a branch vessel.

16. The system of claim 14, further comprising a side sheath positioned alongside said catheter, wherein said side sheath is positioned through said branch portion, thereby detaching it from said surface.

17. The system of claim 16, wherein said side sheath further comprises a second balloon for expansion of said branch portion.

18. A method of stenting a vessel bifurcation, the method comprising:

providing a stent system for placement in a bifurcated body lumen, wherein the system includes a catheter for insertion into the vessel, a balloon positioned on said catheter, and a stent positioned on said balloon, said stent comprising a body wall having a surface extending therebetween, the surface being comprised of a first pattern, said first pattern having first pattern struts and connectors arranged in a particular configuration, and a branch portion comprised of a second pattern, wherein said branch portion is at least partially detached from said surface;

advancing said stent system into a main vessel until the stent system is just proximal to the bifurcation;

expanding said balloon so as to expand said stent body wall; and

expanding said branch portion so that said branch portion extends into the branch vessel.

19. A bifurcation stent, comprising:

a tubular member having an inner diameter and an outer diameter defining a wall therebetween, the wall having a geometrical configuration defining a pattern; and

an expandable branch structure formed in the wall of the tubular structure and interrupting the wall pattern, the expandable branch structure having a first ring connected to the tubular member and a second ring connected to the first ring, the first ring being concentric with the second ring,

wherein the first ring and the second ring are movable from an unexpanded configuration to an expanded configuration, in the unexpanded configuration the first and second rings are disposed along the wall and in the expanded configuration the first and second rings extend outwardly from the tubular member.

20. The stent according to claim 19, wherein the tubular member has a longitudinal axis and the expandable branch structure is disposed substantially perpendicular to the longitudinal axis in the expanded configuration.

21. The stent according to claim 1, wherein the tubular member comprisies a plurality of undulating rings disposed along the longitudinal axis and the undulating rings are connected by connectors.

22. The stent according to claim 21, wherein the first and second rings have a common axis disposed substantially perpendicular to the longitudinal axis in the unexpanded configuration.

23. The stent according to claim 19, wherein the branch structure includes a support ring.

24. The stent according to claim 23, wherein the support ring is a continuous loop.

25. The stent according to claim 23, wherein the support ring comprises a discontinuous portion.

26. A stent for implantation into the body comprising:

a tubular structure with a distal and proximal end with tubular walls of coiled struts capable of expansion in a manner increasing said tubular structure's diameter when within the body and which can form rings if completely expanded;

periodic connections between the individual coiled struts that are capable of expansion in a direction orthogonal to the diameter of the tubular body;

and containing a branch portion that is contiguous with the tubular body of said stent when in an unexpanded form but which expands at an angle to the length dimension of the tubular body when in an expanded configuration.

27. The stent of claim 26 where said branch portion is created by removing one or more of the periodic connections between the coiled struts.

28. The stent of claim 26 where said branch portion is created by adding a geometric structure of coiled struts that forms one or more circles when expanded.

29. The stent of claim 26 where said branch portion is created by adding a geometric structure of coiled struts that forms one or more ovals when expanded.